



# How the Earth Turned Green: A Brief 3.8-Billion-Year History of Plants

*Joseph E. Armstrong*

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On this blue planet, long before pterodactyls took to the skies and tyrannosaurs prowled the continents, tiny green organisms populated the ancient oceans. Fossil and phylogenetic evidence suggests that chlorophyll, the green pigment responsible for coloring these organisms, has been in existence for some 85% of Earth's long history—that is, for roughly 3.5 billion years. In *How the Earth Turned Green*, Joseph E. Armstrong traces the history of these verdant organisms, which many would call plants, from their ancient beginnings to the diversity of green life that inhabits the Earth today.

Using an evolutionary framework, *How the Earth Turned Green* addresses questions such as: Should all green organisms be considered plants? Why do these organisms look the way they do? How are they related to one another and to other chlorophyll-free organisms? How do they reproduce? How have they changed and diversified over time? And how has the presence of green organisms changed the Earth's ecosystems? More engaging than a traditional textbook and displaying an astonishing breadth, *How the Earth Turned Green* will both delight and enlighten embryonic botanists and any student interested in the evolutionary history of plants.

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